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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/802,919	03/18/2004	Evan C. Unger	006086.00020	5427

22907 7590 06/19/2006

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EXAMINER	
WILSON, MICHAEL C	

ART UNIT	PAPER NUMBER
1632	

DATE MAILED: 06/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/802,919	UNGER ET AL.	
	Examiner	Art Unit	
	Michael C. Wilson	1632	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *1* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) _____ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) *1* are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

The first line of the specification is missing parent application 08/841,169. The application numbers on the first line will have to be updated to indicate whether the application has been allowed or abandoned.

Election/Restrictions

Two restrictions are required for the claimed invention – one based on the compound being delivered, the other on the delivery vehicle. Applicants must elect one group from the first restriction and one group from the second restriction to be fully responsive.

Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claim 1, drawn to a method for delivering protein into a cell *in vitro* comprising administering to the cell a composition which comprises the compound to be delivered and an organic halide, classified in various classes and subclasses.

II. Claim 1, drawn to a method for delivering DNA into a cell *in vitro* comprising administering to the cell a composition which comprises the compound to be delivered and an organic halide, classified in class 435, subclass 455.

III. Claim 1, drawn to a method for delivering RNA into a cell *in vitro* comprising administering to the cell a composition which comprises the

compound to be delivered and an organic halide, classified in class 435, subclass 455.

IV. Claim 1, drawn to a method for delivering "other organic compounds" into a cell *in vitro* comprising administering to the cell a composition which comprises the compound to be delivered and an organic halide unknown classes or subclasses.

V. Claim 1, drawn to a method for delivering "other inorganic compounds" into a cell *in vitro* comprising administering to the cell a composition which comprises the compound to be delivered and an organic halide unknown classes or subclasses.

VI. Claim 1, drawn to a method for delivering protein into a cell *in vivo* comprising administering to the cell a composition which comprises the compound to be delivered and an organic halide, classified in various classes and subclasses.

VII. Claim 1, drawn to a method for delivering DNA into a cell *in vivo* comprising administering to the cell a composition which comprises the compound to be delivered and an organic halide, classified in class 435, subclass 455.

VIII. Claim 1, drawn to a method for delivering RNA into a cell *in vivo* comprising administering to the cell a composition which comprises the compound to be delivered and an organic halide, classified in class 435, subclass 455.

IX. Claim 1, drawn to a method for delivering "other organic compounds" into a cell *in vivo* comprising administering to the cell a composition which comprises the compound to be delivered and an organic halide unknown classes or subclasses.

V. Claim 1, drawn to a method for delivering "other inorganic compounds" into a cell *in vivo* comprising administering to the cell a composition which comprises the compound to be delivered and an organic halide unknown classes or subclasses.

Groups I and II are patentably distinct. Introducing a protein to a cell in vitro as in Group I can be used to evaluate a cellular response to the protein. For example, a protein can be introduced into the cell that is missing that protein. Introducing DNA into a cell in vitro as in Group II can be used to make protein. The protocols and reagents for introducing proteins and DNA into cells are materially distinct and separate. The method of introducing protein into cells does not require introducing DNA into cells and the method of introducing DNA into cells does not require introducing protein into cells. The burden required to search both methods together would be undue.

Groups I and III are patentably distinct. Introducing a protein to a cell in vitro as in Group I can be used to evaluate a cellular response to the protein. For example, a protein can be introduced into the cell that is missing that protein. Introducing RNA into a cell in vitro as in Group III can be used to inhibit protein production. The method of introducing protein into cells does not require introducing RNA into cells and the method

of introducing RNA into cells does not require introducing protein into cells. The burden required to search both methods together would be undue.

Groups I and IV are patentably distinct. Introducing a protein to a cell in vitro as in Group I can be used to evaluate a cellular response to the protein. For example, a protein can be introduced into the cell that is missing that protein. The concept of "other organic compounds" is found on pg 15, line 5, of the specification. Introducing "other organic compounds" into a cell in vitro as in Group IV can change the physiology of the cells. The protocols and reagents for introducing proteins and "other organic compounds" into cells are materially distinct and separate. The method of introducing protein into cells does not require introducing "other organic compounds" into cells and the method of introducing "other organic compounds" into cells does not require introducing protein into cells. The burden required to search both methods together would be undue.

Groups I and V are patentably distinct. Introducing a protein to a cell in vitro as in Group I can be used to evaluate a cellular response to the protein. For example, a protein can be introduced into the cell that is missing that protein. The concept of "other inorganic compounds" is found on pg 15, line 5, of the specification. Introducing "other inorganic compounds" into a cell in vitro as in Group V can change the physiology of the cells. The protocols and reagents for introducing proteins and "other inorganic compounds" into cells are materially distinct and separate. The method of introducing protein into cells does not require introducing "other inorganic compounds" into cells and the method of introducing "other inorganic compounds" into cells does not require

introducing protein into cells. The burden required to search both methods together would be undue.

Groups II and III are patentably distinct. Introducing DNA into a cell in vitro as in Group II can be used to produce protein. Introducing RNA into a cell in vitro as in Group III can be used to inhibit protein production. The method of introducing DNA into cells does not require introducing RNA into cells and the method of introducing RNA into cells does not require introducing DNA into cells. The burden required to search both methods together would be undue.

Groups II and IV are patentably distinct. Introducing DNA into a cell in vitro as in Group II can be used to produce protein. The concept of "other organic compounds" is found on pg 15, line 5, of the specification. Introducing "other organic compounds" into a cell in vitro as in Group IV can change the physiology of the cells. The protocols and reagents for introducing DNA and "other organic compounds" into cells are materially distinct and separate. The method of introducing DNA into cells does not require introducing "other organic compounds" into cells and the method of introducing "other organic compounds" into cells does not require introducing DNA into cells. The burden required to search both methods together would be undue.

Groups II and V are patentably distinct. Introducing DNA into a cell in vitro as in Group II can be used to produce protein. The concept of "other inorganic compounds" is found on pg 15, line 5, of the specification. Introducing "other inorganic compounds" into a cell in vitro as in Group V can change the physiology of the cells. The protocols and reagents for introducing DNA and "other inorganic compounds" into cells are

materially distinct and separate. The method of introducing DNA into cells does not require introducing "other inorganic compounds" into cells and the method of introducing "other inorganic compounds" into cells does not require introducing DNA into cells. The burden required to search both methods together would be undue.

Groups III and IV are patentably distinct. Introducing RNA into a cell in vitro as in Group III can be used to inhibit protein production. The concept of "other organic compounds" is found on pg 15, line 5, of the specification. Introducing "other organic compounds" into a cell in vitro as in Group IV can change the physiology of the cells. The protocols and reagents for introducing RNA and "other organic compounds" into cells are materially distinct and separate. The method of introducing RNA into cells does not require introducing "other organic compounds" into cells and the method of introducing "other organic compounds" into cells does not require introducing RNA into cells. The burden required to search both methods together would be undue.

Groups III and V are patentably distinct. Introducing RNA into a cell in vitro as in Group III can be used to inhibit protein production. The concept of "other inorganic compounds" is found on pg 15, line 5, of the specification. Introducing "other inorganic compounds" into a cell in vitro as in Group V can change the physiology of the cells. The protocols and reagents for introducing RNA and "other inorganic compounds" into cells are materially distinct and separate. The method of introducing RNA into cells does not require introducing "other inorganic compounds" into cells and the method of introducing "other inorganic compounds" into cells does not require introducing RNA into cells. The burden required to search both methods together would be undue.

Groups IV and V are patentably distinct. Introducing "other organic compounds" into a cell in vitro as in Group IV would require a different search than introducing "other inorganic compounds" into a cell as in Group V. The concept of "other organic or inorganic compounds" is found on pg 15, line 5, of the specification. The method of introducing "other organic compounds" into cells does not require introducing "other inorganic compounds" into cells and the method of introducing "other inorganic compounds" into cells does not require introducing "other organic compounds" into cells. The burden required to search both methods together would be undue.

Groups I-V are patentably distinct from Groups VI-X. The methods of groups I-V can be for in vitro studies or for protein manufacture while the methods of Groups VI-X can be for treating patients. The protocols and reagents for introducing compounds into cells in vitro are materially distinct and separate than those required to introduce compounds into cells in vivo. The methods of introducing compounds into cells in vitro do not require the methods of introducing compounds into cells in vivo and vice versa. The burden required to search both methods together would be undue.

Groups VI and VII are patentably distinct. Introducing a protein to a cell in vivo as in Group VI requires a different mode of operation than introducing DNA into a cell in vivo as in Group VII because introducing protein does not require the intracellular production of protein while introducing DNA does require the intracellular processing of the DNA such that protein is produced. The protocols and reagents for introducing proteins and DNA into cells in vivo are materially distinct and separate. The method of introducing protein into cells does not require introducing DNA into cells and the method of

introducing DNA into cells does not require introducing protein into cells. The burden required to search both methods together would be undue.

Groups VI and VIII are patentably distinct. Introducing a protein to a cell in vivo as in Group VI can be used to increase the amount of protein in the host. Introducing RNA into a cell in vivo as in Group VIII can be used to inhibit protein production. The method of introducing protein into cells does not require introducing RNA into cells and the method of introducing RNA into cells does not require introducing protein into cells. The burden required to search both methods together would be undue.

Groups VI and IX are patentably distinct. Introducing a protein to a cell in vivo as in Group VI can be used to increase the amount of protein in the host. For example, a protein can be introduced into the cell that is missing that protein. The concept of "other organic compounds" is found on pg 15, line 5, of the specification. Introducing "other organic compounds" into a cell in vivo as in Group IX can be used to change the physiology of the individual, e.g. steroids. The protocols and reagents for introducing proteins and "other organic compounds" into cells are materially distinct and separate. The method of introducing protein into cells does not require introducing "other organic compounds" into cells and the method of introducing "other organic compounds" into cells does not require introducing protein into cells. The burden required to search both methods together would be undue.

Groups VI and X are patentably distinct. Introducing a protein to a cell in vivo as in Group VI can be used to evaluate a cellular response to the protein. For example, a protein can be introduced into the cell that is missing that protein. The concept of "other

inorganic compounds" is found on pg 15, line 5, of the specification. Introducing "other inorganic compounds" into a cell in vivo as in Group X can change the physiology of the cells within the individual, e.g. calcium. The protocols and reagents for introducing proteins and "other inorganic compounds" into cells are materially distinct and separate. The method of introducing protein into cells does not require introducing "other inorganic compounds" into cells and the method of introducing "other inorganic compounds" into cells does not require introducing protein into cells. The burden required to search both methods together would be undue.

Groups VII and VIII are patentably distinct. Introducing DNA into a cell in vivo as in Group VII can be used to produce protein. Introducing RNA into a cell in vivo as in Group VIII can be used to inhibit protein production. The method of introducing DNA into cells does not require introducing RNA into cells and the method of introducing RNA into cells does not require introducing DNA into cells. The burden required to search both methods together would be undue.

Groups VII and IX are patentably distinct. Introducing DNA into a cell in vivo as in Group VII can be used to produce protein. The concept of "other organic compounds" is found on pg 15, line 5, of the specification. Introducing "other organic compounds" into a cell in vivo as in Group IX can change the physiology of the individual, e.g. steroids. The protocols and reagents for introducing DNA and "other organic compounds" into cells are materially distinct and separate. The method of introducing DNA into cells does not require introducing "other organic compounds" into cells and the method of introducing "other organic compounds" into cells does not

require introducing DNA into cells. The burden required to search both methods together would be undue.

Groups VII and X are patentably distinct. Introducing DNA into a cell in vivo as in Group VII can be used to produce protein. The concept of "other inorganic compounds" is found on pg 15, line 5, of the specification. Introducing "other inorganic compounds" into a cell in vivo as in Group X can change the physiology of the cells of the individual, e.g. calcium. The protocols and reagents for introducing DNA and "other inorganic compounds" into cells are materially distinct and separate. The method of introducing DNA into cells does not require introducing "other inorganic compounds" into cells and the method of introducing "other inorganic compounds" into cells does not require introducing DNA into cells. The burden required to search both methods together would be undue.

Groups VIII and IX are patentably distinct. Introducing RNA into a cell in vivo as in Group VIII can be used to inhibit protein production. The concept of "other organic compounds" is found on pg 15, line 5, of the specification. Introducing "other organic compounds" into a cell in vivo as in Group IX can change the physiology of the individual, e.g. steroids. The protocols and reagents for introducing RNA and "other organic compounds" into cells are materially distinct and separate. The method of introducing RNA into cells does not require introducing "other organic compounds" into cells and the method of introducing "other organic compounds" into cells does not require introducing RNA into cells. The burden required to search both methods together would be undue.

Groups VIII and X are patentably distinct. Introducing RNA into a cell in vivo as in Group VIII can be used to inhibit protein production. The concept of "other inorganic compounds" is found on pg 15, line 5, of the specification. Introducing "other inorganic compounds" into a cell in vivo as in Group X can change the physiology of the cells of the individual, e.g. calcium. The protocols and reagents for introducing RNA and "other inorganic compounds" into cells are materially distinct and separate. The method of introducing RNA into cells does not require introducing "other inorganic compounds" into cells and the method of introducing "other inorganic compounds" into cells does not require introducing RNA into cells. The burden required to search both methods together would be undue.

Groups IX and X are patentably distinct. Introducing "other organic compounds" into a cell in vivo as in Group IX would require a different search than introducing "other inorganic compounds" into a cell as in Group X. The concept of "other organic or inorganic compounds" is found on pg 15, line 5, of the specification. The method of introducing "other organic compounds" into cells does not require introducing "other inorganic compounds" into cells and the method of introducing "other inorganic compounds" into cells does not require introducing "other organic compounds" into cells. The burden required to search both methods together would be undue.

Currently, claim 1 is generic to any compound listed on pg 42, line 30, through pg 45, line 2.

Upon electing one of the above Groups, applicants must indicate which of the compounds listed on pg 42, line 30, through pg 56, line 2, are encompassed by the elected invention.

Furthermore, applicants must elect one of the following Groups for examination:

I. Claim 1, drawn to a method for delivering a compound into a cell using a composition comprising a halogenated alkyl chain, classified in various classes and subclasses, such as class 514, subclass 757, 758, 759 and 780.

II. Claim 1, drawn to a method for delivering a compound into a cell using a composition comprising a halogenated alkenyl chain.

III. Claim 1, drawn to a method for delivering a compound into a cell using a composition comprising a halogenated alkynyl chain.

IV. Claim 1, drawn to a method for delivering a compound into a cell using a composition comprising a halogenated diene chain.

V. Claim 1, drawn to a method for delivering a compound into a cell using a composition comprising a halogenated alkyl amine, classified in class 514, subclass 672.

VI. Claim 1, drawn to a method for delivering a compound into a cell using a composition comprising a halogenated aromatic chain.

VII. Claim 1, drawn to a method for delivering a compound into a cell using a composition comprising a halogenated hydroquinone.

VIII. Claim 1, drawn to a method for delivering a compound into a cell using a composition comprising a halogenated isoquinone.

IX. Claim 1, drawn to a method for delivering a compound into a cell using a composition comprising a halogenated pyrolidinyl compound.

X. Claim 1, drawn to a method for delivering a compound into a cell using a composition comprising a halogenated pyranyl ring.

XI. Claim 1, drawn to a method for delivering a compound into a cell using a composition comprising a halogenated furanyl ring, classified in class 514, subclass 461.

XII. Claim 1, drawn to a method for delivering a compound into a cell using a composition comprising a halogenated alkyl ether.

XIII. Claim 1, drawn to a method for delivering a compound into a cell using a composition comprising a mixed halogenated alkyl chain.

XIV. Claim 1, drawn to a method for delivering a compound into a cell using a composition comprising a mixed halogenated alkenyl chain.

XV. Claim 1, drawn to a method for delivering a compound into a cell using a composition comprising a mixed halogenated alkynyl chain.

XVI. Claim 1, drawn to a method for delivering a compound into a cell using a composition comprising a mixed halogenated diene chain.

XVII. Claim 1, drawn to a method for delivering a compound into a cell using a composition comprising a mixed halogenated benzyne ring, classified in class 514, subclass 751.

XVIII. Claim 1, drawn to a method for delivering a compound into a cell using a composition comprising a halogenated ketone.

XIX. Claim 1, drawn to a method for delivering a compound into a cell using a composition comprising a fluorinated hydroquinone.

XX. Claim 1, drawn to a method for delivering a compound into a cell using a composition comprising a fluorinated bicyclic ring.

XXI. Claim 1, drawn to a method for delivering a compound into a cell using a composition comprising 5-bromovaleryl chloride.

Groups I-XXI are patentably distinct because they have different structures and functions. The burden to search the groups together would be undue. The protocols and reagents required to deliver compounds using each group are materially distinct and separate. None of the organic halides listed on pg 8-11 are disclosed as being used together. Accordingly, restriction between the patentably distinct groups is proper. A copy of pages 8-11 of the specification is attached to this restriction with numbers next to each compound listed. The numbers correspond to the group to which the examiner believes the compound belongs.

Upon electing one of the above Groups, applicants must confirm the organic halides listed on pg 8-11 that correspond to the elected invention.

Because these inventions are independent or distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

Because these inventions are independent or distinct for the reasons given above and have acquired a separate status in the art in view of their different classification, restriction for examination purposes as indicated is proper.

Because these inventions are independent or distinct for the reasons given above and the inventions require a different field of search (see MPEP § 808.02), restriction for examination purposes as indicated is proper.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Inquiry concerning this communication or earlier communications from the examiner should be directed to Michael C. Wilson who can normally be reached at the office on Monday, Tuesday, Thursday and Friday from 9:30 am to 6:00 pm at 571-272-0738.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to (571) 272-0547.

Patent applicants with problems or questions regarding electronic images that can be viewed in the Patent Application Information Retrieval system (PAIR) can now contact the USPTO's Patent Electronic Business Center (Patent EBC) for assistance. Representatives are available to answer your questions daily from 6 am to midnight (EST). The toll free number is (866) 217-9197. When calling please have your application serial or patent number, the type of document you are having an image problem with, the number of pages and the specific nature of the problem. The Patent Electronic Business Center will notify applicants of the resolution of the problem within 5-7 business days. Applicants can also check PAIR to confirm that the problem has been corrected. The USPTO's Patent Electronic Business Center is a complete service center supporting all patent business on the Internet. The USPTO's PAIR system provides Internet-based access to patent application status and history information. It also enables applicants to view the scanned images of their own application file folder(s) as well as general patent information available to the public.

For all other customer support, please call the USPTO Call Center (UCC) at 800-786-9199.

If attempts to reach the examiner are unsuccessful, the examiner's supervisor, Ram Shukla, can be reached on 571-272-0735.

The official fax number for this Group is (571) 273-8300.

Michael C. Wilson

MICHAEL WILSON
PRIMARY EXAMINER

such organic halides are intended to fall within the scope of the term organic halide, as used herein.

Table 1

Organic Halides

	Compound	Boiling Point (°C)
	1. Mixed-halogenated Compounds	
13	1-bromo-nonafluorobutane	43
13	perfluorooctyliodide	160-161
13	perfluoroocytlbromide	142
13	1-chloro-1-fluoro-1-bromomethane	38
13	1,1,1-trichloro-2,2,2-trifluoroethane	45.7
13	1,2-dichloro-2,2-difluoroethane	46
13	1,1-dichloro-1,2-difluoroethane	45
13	1,2-dichloro-1,1,3-trifluoropropane	50.4
13	1-bromoperfluorobutane	43
17	1-bromo-2,4-difluorobenzene	44
13	2-iodo-1,1,1-trifluoroethane	53
21	5-bromovaleryl chloride	43
18	1,3-dichlorotetrafluoroacetone	43
13	bromine pentafluoride	40.3
13	1-bromo-1,1,2,3,3,3-hexafluoropropane	35.5
14	2-chloro 1,1,1,4,4,4-hexafluoro-2-butene	33
16	2-chloropentafluoro-1,3-butadiene	37
14	iodotrifluoroethylene	30
13	1,1,2-trifluoro-2-chloroethane	30
13	1,2-difluorochloroethane	35.5
13	1,1-difluoro-2-chloroethane	35.1
13	1,1-dichlorofluoroethane	31.8
13	heptafluoro-2-iodopropane	39
13	bromotrifluoroethane	-57.8

13		chlorotrifluoromethane	-81.5
13		dichlorodifluoromethane	-29.8
13		dibromofluoromethane	23
13		chloropentafluoroethane	-38.7
13	5	bromochlorodifluoromethane	-4
13		dichloro-1,1,2,2-tetrafluoroethane	3.1-3.6

2. Fluorinated Compounds

1		1,1,1,3,3-pentafluoropentane	40
5		perfluorotributylamine	178
5	10	perfluorotripropylamine	130
6		3-fluorobenzaldehyde	56
6		2-fluoro-5-nitrotoluene	53
6		3-fluorostyrene	40
6		3,5-difluoroaniline	40
6	15	2,2,2-trifluoroethylacrylate	45
6		3-(trifluoromethoxy)-acetophenone	49
1		1,1,2,2,3,3,4,4-octafluorobutane	44.8
1		1,1,1,3,3-pentafluorobutane	40
1		1-fluorobutane	32.5
1	20	1,1,2,2,3,3,4,4-octafluorobutane	44.8
1		1,1,1,3,3-pentafluorobutane	40
19		perfluoro-4 methylquinolizidine	149
7		perfluoro-N-methyl-decahydroquinone	150-155
8		perfluoro-N-methyl-decahydroisoquinone	150-155
9	25	perfluoro-N-cyclohexyl-pyrrolidine	145-152
1		tetradecaperfluoroheptane	76
1		dodecaperfluorocyclohexane	52

3. Perfluorinated Compounds

a. Perfluorocarbons

1		perfluoromethane	-129
1		perfluoroethane	-78.3
1	5	perfluoropropane	-36
1		perfluorobutane	-2
1		perfluoropentane	29.5
1		perfluorohexane	59-60
1		perfluoroheptane	81
1	10	perfluorooctane	102
1		perfluorononane	125
1		perfluorodecane	~ 143
1		perfluorododecane	melting pt 75-77
2		perfluoro-2-methyl-2-pentene	51
1	15	perfluorocyclohexane	52
20		perfluorodecalin	142
20		perfluorododecalin	---
2		perfluoropropylene	-28
1		perfluorocyclobutane	-6
3	20	perfluoro-2-butyne	-25
2		perfluoro-2-butene	1.2
4		perfluorobuta-1,3-diene	6

b. Perfluoroether Compounds

12		perfluorobutylethyl ether	60
12	25	bis(perfluoroisopropyl) ether	54
12		bis(perfluoropropyl) ether	59
10		perfluorotetrahydropyran	34
11		perfluoromethyl tetrahydrofuran	27
12		perfluoro t-butyl methyl ether	36
12	30	perfluoro isobutyl methyl ether	---
12		perfluoro n-butyl methyl ether	35.4

12	perfluoro isopropyl ethyl ether	---
12	perfluoro n-propyl ethyl ether	23.3
12	perfluoro cyclobutyl methyl ether	---
12	perfluoro cyclopropyl ethyl ether	---
12	perfluoro isopropyl methyl ether	36
12	perfluoro n-propyl methyl ether	---
12	perflouro diethyl ether	3-4.5
12	perfluoro cyclopropyl methyl ether	---
12	perfluoro methyl ethyl ether	-23
12	perfluoro dimethyl ether	-59

c. Other

sulfur hexafluoride	m.p. -50.5, sublimes -63.8
selenium hexafluoride	m.p. -34.6 sublimes -46.6

Preferred organic halides include 1-bromo-nonafluorobutane, 1,1,1,3,3-pentafluoropentane, perfluorohexane, perfluorocyclohexane, 1-bromo-1,1,2,3,3,3-hexafluoropropane, heptafluoro-2-iodopropane, 1,1,2,2,3,3,4,4-octafluorobutane, 1-fluorobutane, tetradecaperfluoroheptane and dodecaperfluorocylclohexane. Particularly preferred are perfluorohexane (especially n-perfluorohexane) and perfluorocyclohexane. A wide variety of other organic halides useful in the present invention will be readily apparent to those of skill in the art once armed with the present disclosure. Suitable additional organic halides include those, for example, disclosed in Long, Jr. in U.S. Patent Nos. 4,987,154, 4,927,623, and 4,865,836, the disclosures of each of which are hereby incorporated herein by reference in their entirety.

The amount of organic halide employed in the present invention may vary, as one skilled in the art will recognize, once armed with the present disclosure, and may be dependent on such factors as the particular organic halide employed, type and nature of the compound to be delivered, the age, weight, cells or patient (animal) to be treated, the particular diagnostic, therapeutic or other application intended